

THIRD CLASS



CONTROL DATA

CORPORATION

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# CONTROL DATA® 240 SERIES GRAPHICS TERMINAL SUBSYSTEM

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(GRID—Graphic Remote Integrated Display)



GRID combines line drawing and point plotting capabilities with character and symbol display functions to provide users with a highly versatile graphics entry/display subsystem. This multi-purpose capability is accomplished through an internal stored-program processor which minimizes display-to-data-source communications.

## **BASIC CONFIGURATION**

The GRID equipment consists of a display controller and display console with power supplies, as well as an operator control panel, alphanumeric/function keyboard, and a light pen. The controller functions as a graphics processor. It can perform logic and arithmetic functions, thereby relieving the data source of simple subroutines. The data can then be stored for further use in the terminal or presented on the display console cathode ray tube (CRT).

## **SUBSYSTEM DESCRIPTION**

All communications between the data source and display equipment are under direct control of the data executive program and occur in response to commands transferred to the controller. Data can be dynamically displayed on the CRT and, using the light pen to add or delete a particular line segment or symbol, objects can be moved or altered. The keyboard is used to change parameters or add new information.

## **SYSTEM FEATURES**

### *Display Controller:*

- Stored program processor.
- Interface local to CONTROL DATA 3000 or 6000 Series Computer or remote to DATA-PHONE Data Set 201 or 301.
- 4096-word, 12-bit core memory (1.2  $\mu$ sec cycle time) expandable to 12,288 words.
- Operates either on-line or off-line.
- All integrated circuit logic.
- Unbuffered I/O channel option to add peripherals.

### *Display Console:*

- 12" by 12" display raster (1024 by 1024 positions) on a 21" electromagnetic deflection CRT.
- Solid-state pushbutton activated light pen.
- Alphanumeric/function keyboard includes 64 symbols, edit keys, 10 function keys, and 4 status switches.
- Operator panel includes operation mode switches, octal readout register, numeric keyboard, and program stepping switch.
- Two symbol sizes (64 symbols by 43 lines and 86 symbols by 64 lines).
- Programmed 90° symbol orientation, incremental or absolute mode and dashed vectors, and blink mode.
- 64-character symbol set expandable to 128 characters.



240 SERIES GRAPHICS TERMINAL SUBSYSTEM SPECIFICATIONS

Display Timing :

- Random positioning—12  $\mu$ sec
- Standard characters—1.6 to 6.4  $\mu$ sec
- Point plot—5 to 15  $\mu$ sec
- Vectors—6 to 35  $\mu$ sec

Electrical Data :

- 60 Hz  
102-128 volts, 1 phase, 7 amperes  
177-222 volts, 3 phase, 10 amperes  
OR

- 50 Hz  
182-235 volts, 1 phase, 1.6 amperes  
323-405 volts, 3 phase 5.5 amperes

Environmental Data :

- Operating temperature of +40° to +100° F with 10% to 90% relative humidity.
- Heat dissipation approximately 8350 BTU per hour.

Physical Specifications :

- |              |          |           |          |
|--------------|----------|-----------|----------|
| • Controller |          | • Console |          |
| Height       | 29"      | Height    | 48"      |
| Width        | 18"      | Width     | 34.5"    |
| Depth        | 72"      | Depth     | 47"      |
| Weight       | 170 lbs. | Weight    | 650 lbs. |

Specifications subject to change without notice

Thank you for your interest in Control Data computer systems. We hope the printed materials we are enclosing will begin, at least, to satisfy your interest. If, however, you have further questions, you can probably obtain the quickest results by writing or telephoning to the Control Data office nearest to you.

*Thank you*

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